

REMARKS

Applicant, by the amendments presented above, has made a concerted effort to present claims which more clearly define over the prior art of record, and thus to place this case in condition for allowance.

Currently, claims 1-29 and 32 are pending. Claim 30 was canceled without prejudice in this Amendment.

Clarifying amendments have been made to claims 1-3, 5-7, 9, 10, 13-16, 18, 19, 22, 23, 31 and 32 to remove inconsistencies and to correct grammatical errors. Claims 30 has been deleted as it was a duplicate of claim 29. Corresponding amendments have been made on pages 4-5.

Claim Rejection - 35 U.S.C. §112, second paragraph

Claims 15 and 19 were rejected under 35 U.S.C. §112, second paragraph, because "said parameter" does not have proper antecedent basis.

In claim 15, the first two instances of "said parameter" have been deleted. Proper antecedent basis remains for the remaining instances of "said parameter".

In claim 19, the first two instances of "said parameter" have been deleted and the third instance has been changed to "a parameter". Therefore, proper antecedent basis is provided.

Claim Rejections - 35 U.S.C. §102(b) and 103

Claims 1, 2, 16, 17, 18, 31 and 32 were rejected under 35 U.S.C. §102(b) as allegedly being anticipated by United States Patent No. 5,558,084 to Daniell et al. and claims 3-7, 13-

15 and 19-23 were rejected under 35 U.S.C. §103 as allegedly being unpatentable over Daniell et al. Reconsideration of the rejection is requested.

Independent claim 1 specifies “a controller or processor configured or programmed to: (a) determine a parameter relating to the flow rate of said gases through said apparatus . . . (c) supply as said input power to said humidifier a level of power substantially similar to said determined power input to said humidifier.” Independent claim 13 specifies “a controller or processor including stored instructions to . . . (a) determine a parameter relating to the flow rate of said gases through said apparatus . . . (c) supply as said input power to said humidifier a level of power substantially similar to said determined power input to said humidifier”. Independent claim 15 specifies “a controller or processor including stored instructions to . . . (a) energise said water heater to heat said water towards a first condition, determine a variable indicative of a property of said water heater and continually monitor said variable, until said variable indicates that said water has substantially reached said first condition, and determine a parameter relating to the flow rate of said gases through said apparatus based on at least said variable and said indication of the external temperature . . . (c) supply as said input power to said humidifier a level of power substantially similar to said determined power input to said humidifier.” Independent claim 17 specifies “using an open loop controlled humidifier comprising the steps of: (a) determining a parameter relating to the flow rate of said gas through said humidifier . . . (c) supplying a level of power to said humidifier substantially similar to said determined power. Independent claim 32 specifies “using open loop control comprising . . . means for determining a parameter relating to the flow rate of said gas through said apparatus . . . means for supplying as said input power to said humidifier a level of power substantially similar to said determined power input to said humidifier.”

Applicant submits that Daniell et al. does not disclose determining a parameter relating to the flow rate of gases through the apparatus as specified in the independent claims. Instead, Daniell et al. discloses determining the temperature of the gases. The temperature of the gases is not, on its own, a parameter related to the flow rate of gas through the apparatus. It is an essential feature of the invention claimed in the independent claims to use a measure of flow rate to control the power supplied to the humidifier, as this prevents dangerous conditions occurring at low flow rates or zero flow rate. Therefore, because Daniell et al. does not disclose all of the limitations of the independent claims, Applicant submits that independent claims 1, 13, 15, 17 and 32 are allowable. Reconsideration and allowance is requested.

With further regard to independent claim 15, it appears that the Examiner has misunderstood the subject matter of this claim. The Examiner states that it would be obvious to use a parameter of the power drawn by the water heater divided by the temperature of the water heater since the power and temperature are proportionally related to each other. That being the case, the parameter of power drawn by the water heater divided by the temperature of the water heater would be a constant and would provide no information. The whole point of the invention of claim 15 is that they are not proportionally related and the power drawn by the water heater divided by temperature of the water heater is indicative of the flow rate of gases through the humidifier. The greater the amount of power required to raise the gases to a given temperature, the greater the flow rate of gases through the humidifier. Applicant submits that this is clearly explained in the present disclosure. Thus, Applicant submits that independent claim 15 is further allowable on this basis. Reconsideration and allowance is requested.

Claims 2-7 are dependent upon claim 1 which Applicant submits is in condition for allowance. Therefore, Applicant submits that claims 2-7 are allowable. Claim 14 is dependent upon claim 13 which Applicant submits is in condition for allowance. Therefore, Applicant submits that claim 14 is allowable. Claims 18-23 are dependent upon claim 17 which Applicant submits is in condition for allowance. Therefore, Applicant submits that claims 18-23 are allowable. Reconsideration and allowance of these claim is requested.

With further regard to claims 5, 13 and 21, Applicant submits that Daniell et al. does not disclose or suggest a step of continuously monitoring the parameter for changes and controlling the power supply to the humidifier based on the amount of change of the parameter exceeding a threshold. The Examiner has merely stated that the subject matter of these claims is obvious without providing any support for the argument and submits that the Examiner is using hindsight in the rejection. Applicant requests a specific explanation of the rejection, along with specific references to the suggestions in the prior art. Otherwise, Applicant requests that the Examiner withdraw the rejection.

Independent claims 16 and 31 require an indicator which indicates when the conduit heater is correctly connected and operable within predefined limits. Applicant submits that Daniell does not disclose this feature. The Examiner has equated both display 67 and alarm 62 of Daniell with the indicator claimed in claims 16 and 31. There is no disclosure in Daniell that display 67 indicates proper connection of the conduit heater; it is described as displaying temperature information. Alarm 62 is described as sounding upon sensing of undesirable circumstances or faults. There is, therefore, no way that alarm 62 would sound upon correct connection of the conduit heater. Therefore, neither display 67 or alarm 62 correspond with the indicator claimed in claims 16 and 31. Thus, independent claims 16 and 31 are not anticipated by Daniell. Reconsideration and allowance is requested.

Claims 8, 9, 12, 24 and 25 were rejected under 35 U.S.C. §103 as allegedly being unpatentable over Daniell et al. in view of United States Patent No. 5,349,946 to McComb or United States Patent No. 5,031,612 to Clementi.

Claims 8, 9 and 12 are dependent upon claim 1 which Applicant submits is in condition for allowance. Therefore, Applicant submits that claims 8, 9 and 12 are allowable. Claims 24 and 25 are dependent upon claim 17 which Applicant submits is in condition for allowance. Therefore, Applicant submits that claims 24 and 25 are allowable. Reconsideration and allowance of these claim is requested.

In addition, neither McComb or Clementi discloses using a measure of the rate of flow of gas through the apparatus to control the power to the humidifier. Regardless of whether McComb or Clementi shows a supply of gas to the apparatus at given flow rate, Applicant submits that it would not be obvious to use a measure of that flow rate to control the power to the humidifier. Indeed, it might be thought that by providing a gas supply to provide gases at a given flow rate, it would not be necessary to control the power supplied to the humidifier based on flow rate because the flow rate would be constant, and no dangerous conditions would occur. However, experience has shown the inventors of the present application this is not the case, as the apparatus can become blocked or obstructed.

Claims 10, 11 and 26-28 were rejected under 35 U.S.C. §103 as allegedly being unpatentable over Daniell et al. in view of McComb or Clementi, and further in view of United States Patent No. 5,546,933 to Rapoport et al.

Claims 10 and 11 are dependent upon claim 1 which Applicant submits is in condition for allowance. Therefore, Applicant submits that claims 10 and 11 are allowable. Claims 26-28 are dependent upon claim 17 which Applicant submits is in condition for allowance.

Therefore, Applicant submits that claims 26-28 are allowable. Reconsideration and allowance of these claim is requested.

Double Patenting Rejection

Claims 1, 2, 8-13, 15, 17-20, 29, 30 and 32 were provisionally rejected under the judicially created doctrine of double patenting as allegedly being unpatentable over claims 1-3, 5-9, 11-17, 19, 21, 27 and 34-36 of co-pending application Serial No. 10/001,596. Applicant has concurrently filed a Terminal Disclaimer which Applicant submits overcomes this rejection. Withdrawal of this rejection is requested.

Applicant notes that claim 29 was not rejected based upon prior art. Therefore, Applicant assumes that claim 29 is now allowable, if placed into independent form, in view of the filing of the Terminal Disclaimer. Acknowledgment of same is requested in the next Office Action.

In view of the above, Applicant respectfully submits that the claims of the application are allowable over the rejections of the Examiner. Should the Examiner have any questions regarding this Amendment, the Examiner is invited to contact one of the undersigned attorneys at (312) 704-1890.

Respectfully submitted,

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